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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,511	10/31/2003	Michel A. Riou	084061-0500	9611
22879	7590	06/22/2006	EXAMINER	
HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			FIDLER, SHELBY LEE	
			ART UNIT	PAPER NUMBER
			2861	

DATE MAILED: 06/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/698,511

Applicant(s)

RIOU ET AL.

Examiner

Shelby Fidler

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/8/05 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

The affidavit filed on 4/4/06 under 37 CFR 1.131 is sufficient to overcome the Berg et al. (US 6659587 B2) reference.

Claim Objections

Claim 21 recites the limitation "the handling system" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Allowable Subject Matter

The indicated allowability of claims 6 and 27-29 is withdrawn in view of the newly discovered reference(s) to Garcia et al. (US 6076913). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 23-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Hirabayashi et al. (US 6203138 B1).

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***regarding claim 23**, a condensate storage system comprising:

a receptacle having an inlet (inlet is inherent with col. 5, lines 45-50); and

a condensate-absorbing member (ink absorption member 16) within the receptacle (col. 6, lines 12-16)

***regarding claim 24**, the receptacle is perforate to permit a portion of the condensate to evaporate (col. 14, lines 7-10)

***regarding claim 25**, the receptacle and the condensate-absorbing member are configured to permit removal of the absorbing member from the receptacle (col. 6, lines 20-24)

***regarding claim 26**, the system is configured for use in a printing system having an outer housing (Fig. 2) and wherein the receptacle is configured to be removably received within the housing (col. 8, lines 14-18 and Figs. 2, 5, and 6)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 7-10, 12-14, and 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. (US 6176563 B1) in view of Hirabayashi et al. (US 6203138 B1).

Anderson et al. teach the following:

***regarding claim 1**, a printing system comprising:

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an ink dispenser (printhead 104, Fig. 1) configured to deposit ink upon a print medium (col. 4, lines 9-11);

a condenser (condensation element 126, Fig. 1) configured to condense vapor into a condensate (col. 4, lines 31-33);

a receptacle (reservoir 112, Fig. 1) configured to collect the condensate (col. 4, lines 28-31);

***regarding claim 2**, the condenser includes:

a conduit having a conduit interior (dye effluent duct 130, Fig. 1);

a coolant source connected to the conduit and configured to supply coolant into the conduit interior (col. 5, lines 15-16) at a temperature so as to condense the vapor along the conduit (col. 5, lines 20-26)

***regarding claim 3**, the coolant source is configured to supply a liquid (cooling fluid) at a temperature so as to condense the vapor along the conduit (col. 5, lines 15-18)

***regarding claim 4**, the coolant source is configured to supply a gas (cooling fluid) at a temperature so as to condense the vapor along the conduit (col. 5, lines 15-18)

***regarding claim 7**, the coolant source includes:

a pump (pump 620, Fig. 6) configured to move fluid (col. 6, lines 64-67);

a cooling device (compressor 706, Fig. 6) configured to cool the fluid to the temperature (col. 5, lines 51-56)

***regarding claim 8**, the cooling device includes a compressor (compressor 706, col. 5, lines 51-56)

***regarding claim 9**, the condenser includes a thermoelectric module (col. 5, lines 33-34)

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***regarding claim 10**, a blower configured to move the vapor along the condenser (col. 7, lines 5-9)

***regarding claim 18**, the ink dispenser includes an inkjet printhead (col. 4, lines 9-11)

***regarding claim 19**, a media handling system configured to transport individual sheets of material relative to the ink dispenser (col. 4, lines 6-8)

***regarding claim 20**, the media handling system is configured to handle sheets of material having a minor dimension less than 9 inches (col. 4, lines 6-8; recording sheets are known to have a thickness of less than 9 inches)

***regarding claim 21**, the handling system is configured to stack the individual printed upon sheets (output tray 414, Fig. 4)

***regarding claim 22**, a heater (dryer 128) configured to heat the deposited ink, whereby vapor is produced (col. 4, lines 44-50)

Anderson et al. do not expressly teach the following:

***regarding claim 1**, the receptacle is perforated to permit a portion of the condensate to evaporate

***regarding claim 12**, the receptacle includes a condensate-absorbing material within the receptacle

***regarding claim 13**, the condensate-absorbing material is removable from the receptacle

***regarding claim 14**, the condensate-absorbing material comprises a foam

Hirabayashi et al. teach the following:

***regarding claim 1**, the receptacle (waste ink pack 17, Fig. 2) is perforated to permit a portion of the condensate to evaporate (col. 14, lines 7-10 and Fig. 11)

***regarding claim 12**, the receptacle includes a condensate-absorbing material (ink absorption member 16) within the receptacle (col. 6, lines 12-16)

***regarding claim 13**, the condensate-absorbing material is removable from the receptacle (col. 6, lines 19-22)

***regarding claim 14**, the condensate-absorbing material comprises a foam (col. 6, lines 22-24)

At the time of invention, it would have been obvious to a person of ordinary skill in the art to utilize a perforated receptacle in Anderson et al.'s invention. The motivation for doing so, as taught by Hirabayashi et al., is to allow evaporation and prevent internal pressure of the container from rising (col. 14, lines 7-10).

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. (US 6176563 B1) in view of Hirabayashi et al. (US 6203138 B1), as applied to claim 2 above, and further in view of Hoffman et al. (US 6771916 B2).

Anderson et al. modified by Hirabayashi et al. teach all claimed limitations except for the following:

***regarding claim 5**, the condenser includes a fin thermally coupled to the conduit
Hoffman et al. teach the following:

***regarding claim 5**, the condenser includes a fin thermally coupled to the conduit (col. 24, lines 40-43)

At the time of invention, it would have been obvious to a person of ordinary skill in the art to utilize a fin in the condenser of Anderson et al. modified by Hirabayashi et al. The

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motivation for doing so, as taught by Hoffman et al., is to radiate heat from the condenser (col. 7, lines 9-11).

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. (US 6176563 B1) in view of Hirabayashi et al. (US 6203138 B1), as applied to claim 1 above, and further in view of Garcia et al. (US 6076913).

Anderson et al. modified by Hirabayashi et al. teach all claimed limitations except for the following:

***regarding claim 6**, the receptacle includes means for automatically occluding the inlet when disconnected from a remainder of the printing system

Garcia et al. teach the following:

***regarding claim 6**, the receptacle includes an inlet and means for automatically occluding the inlet when disconnected from a remainder of the printing system (col. 5, lines 43-48)

At the time of invention, it would have been obvious to a person of ordinary skill in the art to utilize a means automatically occluding the inlet into the receptacle of Anderson et al. modified by Hirabayashi et al. The motivation for doing so, as taught by Garcia et al., is to provide a self-sealing port for the receptacle (col. 5, lines 43-48).

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. (US 6176563 B1) in view of Hirabayashi et al. (US 6203138 B1), as applied to claim 10 above, and further in view of Sakai (US 6512900 B2).

Anderson et al. teach the following:

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***regarding claim 11, a duct proximate the condenser (return duct 131, Fig. 1)**

Anderson et al. modified by Hirabayashi et al. do not expressly teach the following:

***regarding claim 11, the duct having an exhaust opening; and**

a filter between the condenser and the exhaust opening

Sakai teaches the following:

***regarding claim 11, the duct having an exhaust opening, and**

a filter (filter 12, Fig. 1) between the condenser and the exhaust opening (col. 4, lines 13-18)

At the time of invention, it would have been obvious to a person of ordinary skill in the art to utilize an exhaust opening and filter in the invention of Anderson et al. modified by Hirabayashi et al. The motivation for doing so, as taught by Sakai, is to discharge unliquified vapor and remove particulates (col. 4, lines 14-18).

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. (US 6176563 B1) in view of Hirabayashi et al. (US 6203138 B1), as applied to claim 1 above, and further in view of Kim et al. (US 6101356).

Anderson et al. teach the following:

***regarding claim 15, an inlet through which the condensate flows into the receptacle (inlet is inherent with the invention of col. 4, lines 28-31 and Fig. 1)**

Anderson et al. do not expressly teach the following:

***regarding claim 16, the receptacle is removably coupled to a remainder of the system**

Hirabayashi et al. teach the following:

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***regarding claim 16**, the receptacle is removably coupled to a remainder of the system (col. 8, lines 14-18)

Anderson et al. modified by Hirabayashi et al. do not expressly teach the following:

***regarding claim 15**, a closing portion movable between an inlet open position and an inlet closing position

Kim et al. teach the following:

***regarding claim 15**, a closing portion movable between an inlet open position and an inlet closing position (col. 8, lines 65-67)

At the time of invention, it would have been obvious to a person of ordinary skill in the art to utilize a closing portion in the receptacle of Anderson et al. modified by Hirabayashi et al. The motivation for doing so, as taught by Kim et al., is to prohibit condensate movement to the receptacle as the level of condensate rises (col. 9, lines 13-18).

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. (US 6176563 B1) in view of Hirabayashi et al. (US 6203138 B1), as applied to claim 1 above, and further in view of Igval et al. (US 6357854 B1).

Anderson et al. modified by Hirabayashi et al. do not expressly teach the following:

***regarding claim 17**, the receptacle includes a fill indicator configured to indicate a volume of the receptacle that is filled with condensate

Igval et al. teach the following:

***regarding claim 17**, the receptacle includes a fill indicator configured to indicate a volume of the receptacle that is filled with condensate (col. 2, lines 4-10)

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At the time of invention, it would have been obvious to a person of ordinary skill in the art to utilize a fill indicator in the receptacle of Anderson et al. modified by Hirabayashi et al. The motivation for doing so, as taught by Igval, is to monitor the amount of waste ink in the tank to prevent overflows (col. 2, lines 4-6).

Claims 27 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. (US 6176563 B1) in view of Garcia et al. (US 6076913).

Anderson et al. teach the following:

***regarding claim 27**, means for depositing ink upon a print medium (col. 4, line 9); means for condensing vapor to form a condensate (condenser 126, Fig. 1); and means for storing the condensate (fluid reservoir 112, Fig. 1) wherein the means for storing includes an inlet (inlet is inherent with the invention of col. 4, lines 28-31 and Fig. 1)

***regarding claim 29**, means for heating the deposited ink, whereby vapor is formed (col. 4, lines 44-50)

Anderson et al. do not expressly teach the following:

***regarding claim 27**, the receptacle includes an inlet and means for automatically occluding the inlet when disconnected from a remainder of the printing system

Garcia et al. teach the following:

***regarding claim 27**, the receptacle includes an inlet and means for automatically occluding the inlet when disconnected from a remainder of the printing system (col. 5, lines 43-48)

At the time of invention, it would have been obvious to a person of ordinary skill in the art to utilize a means automatically occluding the inlet into the receptacle of Anderson et al.

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The motivation for doing so, as taught by Garcia et al., is to provide a self-sealing port for the receptacle (col. 5, lines 43-48).

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. (US 6176563 B1) in view of Garcia et al. (US 6076913), as applied to claim 27 above, and further in view of Hirabayashi et al. (US 6203138 B1).

Anderson et al. modified by Garcia et al. teach all claimed limitations except for the following:

***regarding claim 28**, means for storing includes means for evaporating a portion of the condensate while the condensate is being stored

Hirabayashi et al. teach the following:

***regarding claim 28**, means for storing includes means for evaporating a portion of the condensate while the condensate is being stored (col. 14, lines 7-10 and Fig. 11)

At the time of invention, it would have been obvious to a person of ordinary skill in the art to utilize a perforated receptacle in the invention of Anderson et al.'s modified by Garica et al. The motivation for doing so, as taught by Hirabayashi et al., is to allow evaporation and prevent internal pressure of the container from rising (col. 14, lines 7-10).

Claims 30, 33-36, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brinkly (US 6397488 B1) in view of Hirabayashi et al. (US 6203138 B1).

Brinkly teaches the following:

***regarding claim 30**, depositing ink upon the medium (col. 5, lines 31-32);

heating the deposited ink to create vapor (col. 4, lines 47-50);

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condensing the vapor into a condensate (col. 5, lines 45-46);

collecting the condensate in a first receptacle (col. 5, lines 46-47)

***regarding claim 39**, ejecting ink from an inkjet printhead upon the medium (col. 1, lines 13-17 and col. 3, lines 47-48)

Brinkly does not expressly teach the following:

***regarding claim 30**, absorbing at least a portion of the condensate into a first absorption member within the first receptacle

***regarding claim 33**, evaporating a portion of the condensate within the first receptacle

***regarding claim 34**, replacing the first absorption member with a second absorption member

***regarding claim 35**, replacing the first receptacle with a second receptacle when the first receptacle is filled with condensate

***regarding claim 36**, sending the receptacle, at least partially filled with condensate, to a collection entity for recycling or disposal of the condensate

Hirabayashi et al. teach the following:

***regarding claim 30**, absorbing at least a portion of the condensate into a first absorption member within the first receptacle

***regarding claim 33**, evaporating a portion of the condensate within the first receptacle (col. 14, lines 7-10)

***regarding claim 34**, replacing the first absorption member with a second absorption member (col. 6, lines 19-22 and col. 8, lines 5-21)

***regarding claim 35**, replacing the first receptacle with a second receptacle when the first receptacle is filled with condensate (col. 7, lines 55-62)

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***regarding claim 36**, sending the receptacle, at least partially filled with condensate, to a collection entity for disposal of the condensate (col. 6, lines 19-22)

At the time of invention, it would have been obvious to a person of ordinary skill in the art to utilize an absorbing member in Brinkly's receptacle. The motivation for doing so, as taught by Hirabayashi et al., is to absorb and hold the condensate so as to prevent the condensate from leaking outside (col. 7, lines 43-45).

Claims 31, 32, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brinkly (US 6397488 B1) in view of Hirabayashi et al. (US 6203138 B1), as applied to claim 30 above, and further in view of Anderson et al. (US 6176563 B1).

Brinkly modified by Hirabayashi et al. teach all claimed limitations except for the following:

***regarding claim 31**, circulating a fluid through a thermally conductive conduit having a condensing surface to cool the condensing surface to a temperature to condense the vapor

***regarding claim 32**, powering a thermoelectric module having a cool portion and a hot portion, wherein the cool portion is thermally coupled to a condensing surface along which the vapor is condensed

***regarding claim 38**, directing the vapor across a condensing surface and through a filter
Anderson et al. teach the following:

***regarding claim 31**, circulating a fluid through a thermally conductive conduit having a condensing surface to cool the condensing surface to a temperature to condense the vapor (col. 5, lines 15-27)

***regarding claim 32**, powering a thermoelectric module (col. 5, line 33-36) having a cool portion (element 330, Fig. 3) and a hot portion (element 328, Fig. 3), wherein the cool portion is

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thermally coupled to a condensing surface along which the vapor is condensed (col. 5, lines 37-40)

***regarding claim 38**, directing the vapor across a condensing surface (col. 4, lines 31-33) and through a filter (col. 4, lines 39-41)

At the time of invention, it would have been obvious to a person of ordinary skill in the art to utilize a circulating fluid in the invention of Brinkly modified by Hirabayashi. The motivation for doing so, as taught by Anderson et al., is to transfer heat from the ambient air to the fluid (col. 3, lines 12-15).

Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brinkly (US 6397488 B1) in view of Hirabayashi et al. (US 6203138 B1), as applied to claim 30 above, and further in view of Igval et al. (US 6357854 B1).

Brinkly modified by Hirabayashi et al. teach all claimed limitations except for the following:

***regarding claim 37**, sensing the amount of condensate within the first receptacle
Igval et al. teach the following:

***regarding claim 37**, sensing the amount of condensate within the first receptacle (col. 2, lines 4-10)

At the time of invention, it would have been obvious to a person of ordinary skill in the art to send the used receptacle for disposal in the invention of Brinkly modified by Hirabayashi. The motivation for doing so, as taught by Igval et al., is to monitor the amount of waste ink in the tank to prevent overflows (col. 2, lines 4-6).

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Communication with the USPTO

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shelby Fidler whose telephone number is (571) 272-8455. The examiner can normally be reached on MWF 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vip Patel can be reached on (571) 272-2458. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Shelby Fidler 6/14/06

SLF

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